



AMENDMENTS

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In the claims:

1. (Currently Amended) A method of preserving biologically-active material comprising mixing an aqueous suspension of the biologically-active material with a sterile aqueous solution of chitosan or a non-toxic salt thereof to form a coacervate of the biologically-active material and chitosan or non-toxic salt thereof, adding to the coacervate a sterile aqueous solution of trehalose, subjecting the sterile mixture of coacervate and trehalose to drying at a pressure less than atmospheric and at a temperature [, initially no greater than 37°C, which is subsequently controlled not to fall to 0°C or below] which is initially less than or equal to 37°C and thereafter may fall provided that the temperature does not fall to, or below, 0°C to form a glassy porous matrix comprising metastable glassy trehalose containing, within the matrix, desiccated biologically-active material and chitosan or non-toxic salt thereof.
2. (Original) A method according to claim 1, wherein the biologically-active material is selected from viruses, bacteria, tertiary structured biologically-active protein and nucleic acid.
3. (Original) A method according to claim 2, wherein the biologically-active material is at least one virus selected from Rinderpest Virus, Peste de Petit Ruminants Virus, Measles, Mumps, Rubella, Yellow Fever, Polio and Newcastle Disease Virus.
4. (Currently Amended) A method according to claim 2, wherein the biologically-active material is [Contagious Bovine Pleuropneumonia (CBPP) mycoplasma] Mycoplasma mycoides.
5. (Original) A method according to any one of claims 1 to 4, wherein the sterile aqueous solution of chitosan or non-toxic salt thereof has a chitosan concentration of 0.01% w/v.

6. (Original) A method according to claim 5, wherein the sterile aqueous chitosan solution and the aqueous suspension of biologically-active material are mixed at a volume ratio of 1:1 at pH 7.4.
7. (Currently Amended) A method according to [any one of claims 1 to 6] claim 1, wherein the coacervate of biologically-active material and chitosan is subjected to vortex mixing.
8. (Currently Amended) A method according to [any one of claims 1 to 7] claim 1, wherein the coacervate of biologically-active material and chitosan is mixed with a sterile aqueous trehalose solution having a trehalose concentration in the range of from 0.20 to 20% w/v.
9. (Original) A method according to claim 8, wherein the sterile aqueous solution of trehalose has a trehalose concentration in the range of from 2.5 to 8% w/v.
10. (Original) A method according to claim 9, wherein the sterile aqueous solution of trehalose has a trehalose concentration of about 5% w/v.
11. (Canceled)
12. (Currently Amended) A method according to [any one of claims 1 to 11] claim 1, wherein the drying stage is carried out at a pressure of not greater than 800 mbar.
13. (Currently Amended) A method according to [any one of claims 1 to 12] claim 1, wherein the resulting trehalose matrix containing desiccated biologically-active material and chitosan or non-toxic salt thereof is subjected to a secondary drying procedure for 10 to 30 hours at a pressure not greater than 0.1 mbar and at a temperature which finally is in the range of from 40 to 45°C to form a trehalose matrix having a residual moisture content of not greater than 2% containing, within the matrix, desiccated biologically-active material and chitosan or non-toxic salt thereof.

14. (Currently Amended) A method according to [claim 12] claim 13, wherein secondary drying is carried out for 20 to 30 hours.
15. (Original) A method according to claim 13, wherein secondary drying is carried out for 15 to 17 hours at a temperature of about 37°C and the temperature is, thereafter, raised gradually over the remaining secondary drying time to a final temperature in the range of from 40 to 45°C.
16. (Currently Amended) A method according to [any one of the claims 12 to 14] claim 13, wherein the residual moisture content at the end of the secondary drying step is 1.0% or lower.
17. (Currently Amended) A method of making a vaccine comprising preserving a biologically-active material according to the method of [claims 1 to 15] claim 1 and rehydrating the glassy product obtained thereby in an appropriate aqueous medium.
18. (Currently Amended) A method according to claim [16] 17, wherein the vaccine is for oral or intranasal use.
19. (Original) A method according to claim 17, wherein the vaccine is a Measles, Mumps, Rubella (MMR) vaccine.
20. (Original) A rehydratable composition comprising trehalose in the form of a metastable glass matrix containing, within the matrix, desiccated biologically-active material and chitosan or a non-toxic salt thereof.
21. (Currently Amended) A rehydratable composition according to claim [19] 20 which has a residual moisture content of not greater than 2%.
22. (Currently Amended) A [rehydratable] rehydratable composition according to claim [20] 21 which has a residual moisture content of not greater than 1%.

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23. (Currently Amended) A rehydratable composition according to [any one of claims 19 to 21] claim 20, useful on rehydration for making a vaccine.
24. (Currently Amended) A rehydratable composition according to [any one of claims 19 to 22] claim 20, wherein the biologically-active material is selected from viruses, bacteria, tertiary structured biologically-active proteins and nucleic acids.
25. (Currently Amended) A rehydratable composition according to claim [23] 24, wherein the biologically-active material is at least one virus selected from Rinderpest Virus, Peste de Petit Ruminants Virus, Measles, Mumps, Rubella, Yellow Fever, Polio Myelitis and Newcastle Disease Virus.
26. (Currently Amended) A rehydratable composition according to claim [23] 24, wherein the biologically-active material is [Contagious Bovine Pleuropneumonia (CBPP) mycoplasma] Mycoplasma mycoides.

Please add the following new claims:

27. (New) A method of preserving biologically-active material comprising mixing an aqueous suspension of the biologically-active material with a sterile aqueous solution of chitosan or a non-toxic salt thereof to form a coacervate of the biologically-active material and chitosan or non-toxic salt thereof, adding to the coacervate a sterile aqueous solution of trehalose, subjecting the sterile mixture of coacervate and trehalose to drying for a period of 30 to 60 minutes at a pressure less than atmospheric and at a temperature, which is initially less than or equal to 37°C and thereafter may fall provided that the temperature does not fall to, or below 0°C and wherein the final temperature is less than or equal to 40°C to form a glassy porous matrix comprising metastable glassy trehalose having a residual moisture content of less than or equal to 10% containing, within the matrix, desiccated biologically-active material and chitosan or non-toxic salt thereof.
28. (New) A method according to claim 27, wherein the biologically-active material is selected from viruses, bacteria, tertiary structured biologically-active protein and

nucleic acid.

29. (New) A method according to claim 28, wherein the biologically-active material is at least one virus selected from Rinderpest Virus, Peste de Petit Ruminants Virus, Measles, Mumps, Rubella, Yellow Fever, Polio and Newcastle Disease Virus.
30. (New) A method according to claim 28, wherein the biologically-active material is *Mycoplasma mycoides*.
31. (New) A method according to claim 27, wherein the sterile aqueous solution of chitosan or non-toxic salt thereof has a chitosan concentration of 0.01% w/v.
32. (New) A method according to claim 31, wherein the sterile aqueous chitosan solution and the aqueous suspension of biologically-active material are mixed at a volume ratio of 1:1 at pH 7.4.
33. (New) A method according to claim 27, wherein the coacervate of biologically-active material and chitosan is subjected to vortex mixing.
34. (New) A method according to claim 27, wherein the coacervate of biologically-active material and chitosan is mixed with a sterile aqueous trehalose solution having a trehalose concentration in the range of from 0.20 to 20% w/v.
35. (New) A method according to claim 34, wherein the sterile aqueous solution of trehalose has a trehalose concentration in the range of from 2.5 to 8% w/v.
36. (New) A method according to claim 27, wherein the drying stage is carried out at a pressure of not greater than 800 mbar.
37. (New) A method of preserving biologically-active material comprising mixing an aqueous suspension of the biologically-active material with a sterile aqueous solution of chitosan or a non-toxic salt thereof to form a coacervate of the biologically-active material and chitosan or non-toxic salt thereof, adding to the coacervate a sterile

aqueous solution of trehalose, subjecting the sterile mixture of coacervate and trehalose to drying for a period of from 30 to 60 minutes at a pressure not greater than 800 mbar and at a temperature which is initially less than or equal to 37°C and thereafter may fall provided that the temperature does not fall to, or below, 0°C to form a glassy porous matrix comprising metastable glassy trehalose having a residual moisture content of less than or equal to 10% containing, within the matrix, desiccated biologically-active material and chitosan or non-toxic salt thereof, and then subjecting the resulting trehalose matrix containing desiccated biologically-active material and chitosan or non-toxic salt thereof to a secondary drying procedure for 10 to 30 hours at a pressure not greater than 0.1 mbar and at a temperature which finally is in the range of from 40 to 45°C to form a trehalose matrix having a residual moisture content of not greater than 2% containing, within the matrix, desiccated biologically-active material and chitosan or non-toxic salt thereof.

38. (New) A method according to claim 37, wherein the biologically-active material is selected from viruses, bacteria, tertiary structured biologically-active protein and nucleic acid.
39. (New) A method according to claim 38, wherein the biologically-active material is at least one virus selected from Rinderpest Virus, Peste de Petit Ruminants Virus, Measles, Mumps, Rubella, Yellow Fever, Polio and Newcastle Disease Virus.
39. (New) A method according to claim 38, wherein the biologically-active material is at least one virus selected from Rinderpest Virus, Peste de Petit Ruminants Virus, Measles, Mumps, Rubella, Yellow Fever, Polio and Newcastle Disease Virus.
40. (New) A method according to claim 38, wherein the biologically-active material is *Mycoplasma mycoides*.
41. (New) A method according to claim 37, wherein the coacervate of biologically-active material and chitosan is mixed with a sterile aqueous trehalose solution having a trehalose concentration in the range of from 0.20 to 20% w/v.

42. (New) A method according to claim 41, wherein the sterile aqueous solution of trehalose has a trehalose concentration in the range of from 2.5 to 8% w/v.
43. (New) A method according to claim 37, wherein secondary drying is carried out for 20 to 30 hours.
44. (New) A method according to claim 37, wherein secondary drying is carried out for 15 to 17 hours at a temperature of about 37°C and the temperature is, thereafter, raised gradually over the remaining secondary drying time to a final temperature in the range of from 40 to 45°C.
45. (New) A method according to claim 37, wherein the residual moisture content at the end of the secondary drying step is 1.0% or lower.
46. (New) A method of making a vaccine comprising preserving a biologically-active material according to the method of claim 27 and rehydrating the glassy product obtained thereby in an appropriate aqueous medium.
47. (New) A method of making a vaccine comprising preserving a biologically-active material according to the method of claim 37 and rehydrating the glassy product obtained thereby in an appropriate aqueous medium.
48. (New) A method according to claim 47, wherein the vaccine is for oral or intranasal use.
49. (New) A method according to claim 47, wherein the vaccine is a Measles, Mumps, Rubella (MMR) vaccine.

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